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***Communications and Information***

***RADIO FREQUENCY ENVIRONMENT  
WORKING GROUP***

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This instruction implements AFI 33-118, *Radio Frequency (RF) Spectrum Management*. It applies to all government and commercial users of the Eastern Range (ER). The ER, in the context of this instruction, consists of Cape Canaveral Air Force Station (CCAFS), Kennedy Space Center (KSC), Patrick Air Force Base (PAFB), Malabar Tracking Annex, and Jonathan Dickinson Missile Tracking Annex (JDMTA). Also, included in this definition of the ER are commercial facilities on and adjacent to 45 SW facilities for commercial space ground pre-launch operations and booster telemetry. This instruction defines the organizational structure, functions, and responsibilities of the Radio Frequency Environment Working Group (RFEWG). The primary responsibility of the RFEWG is to function as an advisory body to the 45 SW Commander on radio frequency environment concerns and issues of ER users and organizations.

***SUMMARY OF REVISIONS***

This revision updates participating organizations, office symbols and references; adds requirement for participating organizations to identify in writing the names and telephone numbers of their primary and alternate representatives; adds Malabar Tracking Annex.

**1. References:**

- 1.1. The 45 SWI 33-105, Radio Frequency Management.
- 1.2. The 45 SWI 40-201, Radiation Protection Program.
- 1.3. The 45 SWI 13-206, Eastern Range Scheduling.
- 1.4. The EWR 127-1, Eastern and Western Range Safety Requirements.
- 1.5. The ER Operations Directive 10040.
- 1.6. Range Operating Instruction 10-01-12, Radiation Limits of Mainland Radars for Spacecraft Payload Protection.

- 1.7. Cape Canaveral Spaceport Radio Frequency Environment (TOR-2001(1663)-1).
- 1.8. Mil-STD-461D, Requirements for the Control of Electromagnetic Interference Emissions and Susceptibility.
- 1.9. DoD Directive 4650.1, Management and Use of the Radio Frequency Spectrum.
- 1.10. Eastern Range (ER) Communications-Electronics Instructions (RCEIs).
- 1.11. KHB 1860.2A, KSC Nonionizing Radiation Protection Program.

## 2. Radio Frequency Environment Working Group:

2.1. **Authority.** 45 SCS/SCXF is the 45 SW office of primary responsibility (OPR) that is authorized to establish, organize, and chair the RFEWG. The RFEWG will act as an advisory body to the 45 SW Commander.

2.2. **Organization.** A representative of 45 SCS/SCXF will be the chairperson of the RFEWG. The chairperson will designate a technical chairperson. Meetings will be scheduled by the chairperson every six months. An agenda will be distributed prior to the meeting.

2.2.1. The RFEWG core membership will be represented by personnel from the following organizations:

**Table 1. RFEWG Core Membership.**

45 AMDS/SGPB
45 SCS/SCXF (Frequency Management)
45 OSS/DO
45 RANS/DO
45 RANS/DOUS (Scheduling)
45 SW/SES
45 SW/XP
1 SLS/DO
3 SLS/DO
ASC/ERD
DOD EAFC
FCA
KSC/TA-B2-B
KSC/VB-E1-B

2.2.2. RFEWG core organizations will ensure representatives attend RFEWG meetings and will assign alternate representatives as necessary.

2.2.3. Non-core organizations include (but are not limited to):

**Table 2. RFEWG Non-core Organizations.**

AF Space and Missile Systems Center
ER Customers
Integration Contractors
Launch Vehicle Contractors, Associate Contractors or Subcontractors
Payload (Spacecraft) Contractors, Associate Contractors or Subcontractors

2.2.4. Core and non-core organizations, who would like to propose agenda topics, will formally contact the chairperson before attending a meeting to provide an overview or summary description of a proposed agenda topic.

2.2.5. Core and non-core organizations will identify in writing to 45 SCS/SCXF the name and telephone number of their primary and alternate representatives. A list of these representatives will be formally documented for each organization. Minutes of significant meetings and attendance sheets will be made available to these individuals.

**2.3. Responsibilities.** The RFEWG will perform the following functions, tasks, or activities for the 45 SW Commander:

2.3.1. Serve as a formal body of expertise for resolving RF Environment (RFE) concerns or issues raised by ER users and organizations. This function or activity will include:

2.3.1.1. Assess and resolve incompatibilities related to RFE criteria and RF energy sensitivity requirements in Program Requirements Documents (PRD).

2.3.1.2. Identify operational constraints to users and RF emitters.

2.3.1.3. Resolve RFE concerns that impact ER operations, existing policies and regulations, or which require special funding or support.

2.3.2. Maintain, update, and publish the RFE baseline for the ER and define policies for controlling the baseline. This task will include:

2.3.2.1. Identify and classify emitters.

2.3.2.2. Assess and monitor RFE configuration changes (addition and removal of emitters, etc.), that would change the baseline description.

2.3.3. Develop criteria and coordinate procedures for controlling ER RFEs. This task will include:

2.3.3.1. Specify computer controlled radar masks and transmitter power attenuation levels.

2.3.3.2. Identify and characterize potential sources of and develop corresponding RFE mitigation techniques.

2.3.4. Identify and coordinate proposed RF emitters to 45 SW Radiation Protection Officer (45 AMDS/SGPB) in accordance with 45 SWI 40-201, Radiation Protection Program.

**3. Procedures.** Users will formally submit informational descriptions of their RFE concerns or issues to the chairperson. The chairperson will review and present the concerns or issues to the RFEWG. Users and core members who can contribute to the resolution process will be invited and encouraged to participate. Resolution of confirmed, conflicting or incompatible requirements and RFE criteria will require that

either an RFE mitigation methodology be developed and implemented, or a formal waiver request is processed.

MICHAEL F. LEHNERTZ, Colonel, USAF  
Vice Commander